

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Kambiz Shekdar et al.
Application No. : 10/589,052
Confirmation No. : 5470
Filed or 371(c) Date : September 8, 2008
For : METHODS AND MATERIALS USING SIGNALING
PROBES
Group Art Unit : 1639
Examiner : Amber D. Steele

New York, New York
February 2, 2010

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Sir:

Pursuant to 37 C.F.R. §§ 1.56 and 1.97, applicants make of record the following documents:¹

Non-Patent Documents

BRATU et al., "Visualizing the distribution and transport of mRNAs in living cells," *PNAS*, 100(23):13308-13313 (2003)

BRATU, "Molecular beacons: Fluorescent probes for detection of endogenous mRNAs in living cells," *Methods In Molecular Biology*, 319:1-14 (2006)

¹ A complete Form PTO/SB/08a listing these documents is attached hereto.

BUTLER, "Cell line development and culture strategies: future prospects to improve yields," *Cell Culture and Upstream Processing*, Department of Microbiology, University of Manitoba, Manitoba, Canada, Chapter 1, pages 3-15 (2007)

CHEN et al., "Efficient cytosolic delivery of molecular beacon conjugates and flow cytometric analysis of target RNA," *Nucleic Acids Research*, 36(12):e69 (2008)

DIRKS et al., "Methods for visualizing RNA processing and transport pathways in living cells," *Histochemistry And Cell Biology*, 115(1):3-11 (2001)

GANG, "Sensitive mRNA detection in single living cells," *Abstracts of Papers American Chemical Society*, 228(2):U242-U243 (2004)

GURTU et al., "IRES bicistronic expression vectors for efficient creation of stable mammalian cell lines," *Biochemical and Biophysical Research Communication*, 229(1):295-298 (1996)

HORLICK et al., "Rapid Generation of Stable Cell Lines Expressing Corticotropin-Releasing Hormone Receptor for Drug Discovery," *Protein Expression and Purification*, 9(3):301-308 (1997)

MAKSIMENKO et al., "Real-time detection and efficacy of antisense oligonucleotides delivered by PAMAM dendrimers in living cells," *Journal of Drug Delivery Science and Technology*, 15(1):75-79 (2005)

MEDLEY et al., "Simultaneous monitoring of the expression of multiple genes inside of single breast carcinoma cells," *Analytical Chemistry*, 77(15):4713-4718 (2005)

MOLENAAR et al., "Linear 2' O-Methyl RNA probes for the visualization of RNA in living cells," *Nucleic Acids Research*, 29(17):e89 (2001)

NITIN et al., "NLS peptide conjugated molecular beacons for visualizing nuclear RNA in living cells," *Bioconjugate Chemistry*, 19(100):2205-2211 (2008)

NITIN et al., "Peptide-linked molecular beacons for efficient delivery and rapid mRNA detection in living cells," *Nucleic Acids Research*, 32(6):e58 (2004)

NITIN et al., "Translation inhibition reveals interaction of 2'-deoxy and 2'-O-methyl molecular beacons with mRNA targets in living cells," *Nucleic Acids Research*, 37(15):4977-4986 (2009)

RHEE et al., "Target accessibility and signal specificity in live-cell detection of BMP-4 mRNA using molecular beacons," *Nucleic Acids Research*, 36(5):e30 (2008)

RODRIGUEZ et al., "Imaging mRNA movement from transcription sites to translation sites," *Seminars In Cell and Developmental Biology*, 18(2):202-208 (2007)

SANTANGELO et al., "Direct visualization of mRNA colocalization with mitochondria in living cells using molecular beacons," *Journal Of Biomedical Optics*, 10(4):44025 (2005)

SANTANGELO et al., "Dual FRET molecular beacons for mRNA detection in living cells," *Nucleic Acids Research*, 32(6):e57 (2004)

SANTANGELO et al., "Live-cell characterization and analysis of a clinical isolate of bovine respiratory syncytial virus, using molecular beacons," *Journal Of Virology*, 80(2):682-688 (2006)

SANTANGELO et al., "Nanostructured probes for RNA detection in living cells," *Annals Of Biomedical Engineering*, 34(1):39-50 (2006)

TANG et al., "Monitoring p21 mRNA expression in living cell based on molecular beacon fluorescence increasing rate," *Chinese Science Bulletin*, 53(3):357-361 (2008)

TANG et al., "mRNA detection in living cell using phosphorothioate-modified molecular beacon" *Chinese Science Bulletin*, 54(9):1507-1514 (2009)

TYAGI et al., "Imaging native beta-actin mRNA in motile fibroblasts," *Biophysical Journal*, 87(6):4153-4162 (2004)

VAN CRAENENBROECK et al., "Evaluation of the tetracycline- and cedysonc-inducible systems for expression of neurotransmitter receptors in mammalian cells," *European Journal Neuroscience*, 14(6):968-976 (2001)

WANG et al., "Imaging and characterizing influenza A virus mRNA transport in living cells," *Nucleic Acids Research*, 36(15):4913-4928 (2008)

WANG et al., "Molecular engineering of DNA: molecular beacons," *Angewandte Chemie*, 48(5):856-870 (2009)

WU et al., "Nucleic acid beacons for long-term real-time intracellular monitoring," *Analytical Chemistry*, 80(8):3025-3028 (2008)

YANG et al., "Monitoring nucleic acids using molecular beacons," *Current Pharmaceutical Biotechnology*, 6(6):445-452 (2005)

ZAHN-ZABAL et al., "Development of stable cell lines for production or regulated expression using matrix attachment regions," *Journal of Biotechnology*, 87(1):29-42 (2001)

Copies of these documents are enclosed herewith.

Applicants respectfully request that these documents be: (1) fully considered by the Examiner during the examination of this application; and (2) printed on any patent that may issue from this application. Applicants request that a copy of the enclosed Form PTO/SB/08a, as

considered and marked by the Examiner, be forwarded to the undersigned with the next communication.

This Supplemental Information Disclosure Statement is being filed before the mailing of a first Office Action on the merits. Pursuant to 37 C.F.R. § 1.97(b)(3), no fee is believed to be due. However, the Director is hereby authorized to charge any fee required, or credit any overpayment, in connection with this Statement, to Deposit Account No. 06-1075, Order No. 002298-0003-101.

Respectfully submitted,

/Jane T. Gunnison/
Jane T. Gunnison (Reg. No. 38,479)
Attorney for Applicants
ROPES & GRAY LLP
Customer No. 81098
1211 Avenue of the Americas
New York, New York 10036
Tel.: (212) 596-9000
Fax.: (617) 235-9492